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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/709,432	05/05/2004	Walter K. McCarter	10893.3801	3431
22235	7590	05/18/2005	EXAMINER	
MALIN HALEY AND DIMAGGIO, PA 1936 S ANDREWS AVENUE FORT LAUDERDALE, FL 33316			VANATTA, AMY B	
			ART UNIT	PAPER NUMBER
			3765	

DATE MAILED: 05/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/709,432

Applicant(s)

MCCARTER ET AL.

Examiner

Amy B. Vanatta

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 6 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically, claim 6 recites that at least a portion of the moisture resistant material comprising the ribs is stretchable. The specification as originally filed does disclose that the protrusions or ribs 24 are made of moisture resistant material such as closed cell polyethylene foam and discloses that the ribs may be covered with additional surface coating to prevent moisture absorption (see, e.g., pages 5, 9, 12 and 13), however the specification does not disclose that the ribs comprise a material which is stretchable.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 4 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 4 and 5, the term "preferably " renders the claim indefinite because it is unclear whether the limitation following the term is part of the claimed invention. See MPEP § 2173.05(c) and 2173.05(d).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claim 10 is rejected under 35 U.S.C. 102(b) as being anticipated by Grenier (3,706,102).

Grenier discloses a ventilated garment comprising a sheet of moisture resistant material (layer 5, disclosed as made of nylon which is resistant to wind and is waterproof; col. 2, lines 16-23) having an inner surface, an outer surface, and a plurality of ribs 13' on the inner surface thereof (see Fig. 2). The ribs 13' form a plurality of alternating elongated, parallel ridges and air channels on the inner surface, directed towards a wearer as claimed. The ribs 13' are made of the same material as layer 5 (see col. 2, lines 35-60 and Fig. 2), thus being moisture resistant since Grenier teaches that lining 5 may be made of waterproof nylon. The alternating ridge and channel ribs

have a structure which is adapted to allow air flow vertically through a top portion and a bottom portion of the garment, as claimed.

7. Claim 10 is rejected under 35 U.S.C. 102(b) as being anticipated by Han (5,794,266).

Han discloses a garment comprising a sheet of moisture resistant material (see glove 40 in Fig. 7) having an inner surface, an outer surface, and a plurality of projections 38 forming ribs on the inner surface thereof (Fig. 7). The ribs 38 form a plurality of alternating elongated, parallel ridges and air channels on the inner surface, directed towards a wearer as claimed (col. 3, lines 26-30). The ribs 38 are made of the same material (rubber or latex) as the rest of the glove, since they are molded with the glove (col. 3, lines 38-48); thus, the ribs 38 are made of moisture resistant material, as in claim 10. The alternating ridges and channels have a structure which is adapted to allow air flow vertically through a top portion and a bottom portion of the garment, as claimed.

8. Claim 10 is rejected under 35 U.S.C. 102(b) as being anticipated by Gioello (5,515,543).

Gioello discloses an air-cooled garment comprising a sheet of moisture resistant material (sheet 22; see col. 4, lines 29-30 and col. 8, line 54) having an inner surface, an outer surface, and a plurality of ribs 18 on the inner surface thereof (see Fig. 1). The ribs 18 form a plurality of alternating elongated, parallel ridges and air channels 20 on

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the inner surface, directed towards a wearer as claimed (col. 4, lines 27-28). Gioello discloses that the ribs 18 may be made of flexible plastic tubes (col. 4, lines 60-67). Plastic is moisture resistant, as in claim 10. The alternating ridge and channel ribs have a structure which is adapted to allow air flow vertically through a top portion and a bottom portion of the garment, as claimed.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-5, 7-9, and 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gioello (5,515,543) in view of Ichigaya (US 2004/0083526).

Regarding claim 1, Gioello discloses an air-cooled garment comprising a fabric body having an inner surface, an outer surface, and a plurality of ribs 14 on the inner surface thereof (see Fig. 2). The fabric body comprises a porous layer 24 having ribs 14 on the inner surface thereof, and Gioello discloses that the porous layer may be made of stretch knit (col. 11, line 20), thus forming a "stretchable fabric body" as claimed. The ribs 14 form a plurality of alternating elongated, parallel ridges and air channels 16 on the inner surface, directed towards a wearer as claimed (col. 4, lines 25-26; see also col. 10, lines 53-57 disclosing that the garment may include an inner layer 12, or no inner layer such that item "12" is the wearer's skin as shown in the figures).

Regarding claim 11, layer 24 forms a sheet of material having raised ribs 14 forming a plurality of alternating , elongated parallel ridges and channels (16) in the inner surface thereof. The sheet 24 is stretchable (col. 11, line 20) as in claim 13. The ribs are “intrinsic” to the inner surface of the garment, to the extent recited in claim 3, and Gioello discloses that the ribs may be made out of flexible plastic tubes (col. 4, lines 60-67). Plastic is moisture resistant, as in claims 4 and 14. The garment body of Gioello includes a moisture resistant material (layer 22, disclosed as made of non-porous, moisture impervious material; see col. 4, lines 29-30 and col. 8, line 54), as in claim 5. Regarding claim 12, the sheet of material of the garment of Gioello enhances the protective qualities of a vest under which the cooling garment may be worn since it improves ventilation of the wearer.

Gioello discloses that air flow may be created through the garment by means of natural pumping action (col. 7, lines 2-11) or by forced ventilation such as by pump 102. The pump 102 forces air through the garment and creates circulation as the pumped air moves through the channels (col. 10, line 58 through col. 11, line 8). Gioello does not disclose that a fan be used to create air flow by drawing air out of the channels, as in claim 1. Gioello also does not disclose that a means for drawing air out of the garment from the air channels be used to create air circulation, as in claim 11. Ichigaya discloses a cooling garment including a fabric body (10) having in inner surface, an outer surface, and a plurality of raised protrusions (22) forming air channels on the inner surface directed towards a wearer (paragraph 0030). A fan (50) is provided in communication with the air channels which produces exhaust air flow, drawing air out of

the space between the protrusions (0035). Ichigaya teaches that the fan producing exhaust air flow cools the wearer by drawing air which has been heated by the wearer's body heat away from the body (0034-0035; 0078-0079). The fan (50) includes a power switch (0044) as in claim 7. The fan (50) has a cord (62) which is attached to and thus plugged into the battery 61. Alternatively, paragraph 0036 discloses that the battery may be provided with a "charging connector" for connecting the secondary battery to an exterior power source, thus comprising a plug as in claim 7. The fan (50) has a portable power source (battery 61) in electrical communication with the fan as in claim 8. The fan is detachable from the garment. The means for attaching and detaching the fan from the garment comprises an attaching mechanism as shown in Figs. 10a-10c and described in paragraphs 0038-0040, which structure forms a quick disconnect baffle as in claim 9. The garment of Ichigaya includes a quick release for the fan (see magic tape fasteners as in paragraph 0037 or see fastening means disclosed in Figs. 10a-10c and 0038-0043), as in claim 15. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the garment of Gioello to an exhaust fan which draws air out of the air channels of the garment, such as shown by Ichigaya, rather than an air pump for air circulation, in order to optimally cool the wearer by drawing warmer air away from the body, as taught by Ichigaya. This fan forms a means for drawing air out of the garment from the air channels within the meaning of the means-plus-function recitation of claim 11, since the specification discloses that this means comprises a fan. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide this fan in the garment of Gioello with

a quick disconnect such as shown by Gioello, in order to permit easy removal of the fan, as taught by Ichigaya.

Regarding claim 2, the garment of Gioello comprises a plurality of connectable front and back sections (see Figs. 15 and 27). Gioello does not disclose that the front and back section comprise reflective material as in claim 2. Ichigaya teaches that his air cooled garment includes "heat-ray reflecting treatment" on the surface of the cloth, in order to improve the cooling effect of the garment when performing outdoor working operations in the blazing midsummer (0104). It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide reflective surface material on the front and back sections of the garment of Gioello in order to improve the cooling effect of the garment when performing outdoor working operations, by reflecting the heat of the sun as taught by Ichigaya.

Response to Arguments

11. Applicant's arguments with respect to claims 1-15 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

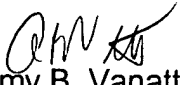
13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amy B. Vanatta whose telephone number is 571-272-4995. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Calvert can be reached on 571-272-4983. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Amy B. Vanatta
Primary Examiner
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